

IN THE CLAIMS:

Please amend Claims 7, 9, 16 and 19, as follows. All claims currently pending in the application are being reproduced below in accordance with current U.S. Patent and Trademark Office requirements.

1. (Previously Presented) A printing apparatus including transporting means for transporting a print medium relative to printing means for printing an image on a print medium, the apparatus comprising:

a carriage for supporting said printing means and reciprocating said printing means in a direction crossing a direction in which the print medium is transported; and

control means for controlling said printing apparatus so that said printing apparatus performs a transportation by said transporting means and printing by said printing means in sequence, and so that said carriage moves to vibrate said transporting means without performing a printing after said transporting means completes a transportation and before said printing means starts a printing.

2. (Original) A printing apparatus according to claim 1, wherein said transporting means comprises a movable member installed so as to move or stop relative to a travel path for the print medium, and said movable member contracts, while moving, with the print medium in said travel path to transfer the print medium, and is held, while stopped, at a predetermined stabilized position normally.

3. (Original) A printing apparatus according to claim 1, wherein said transporting means comprises a pair of rollers installed in the travel path for the print medium and opposite each other, roller urging means for urging said pair of rollers so that the rollers sandwich the print medium therebetween, and driving means for rotationally driving at least one of said pair of rollers.

4. (Previously Presented) A printing apparatus according to claim 3, wherein said pair of rollers comprises a transportation roller located upstream of the printing means in a transporting direction thereof and driven by a predetermined driving means, and a pinch roller that rotates in connection with the transportation roller.

Claim 5 (Cancelled).

6. (Previously Presented) A printing apparatus according to claim 1, wherein said carriage moves to vibrate the transporting means by performing at least one reciprocation.

7. (Currently Amended) A printing apparatus according to claim 1, further comprising a pressure plate that supports the print medium, a sheet feeding roller that feeds print medium supported on said pressure plate, ~~and~~ a spring for pressuring a print medium supported by said pressure plate onto said feeding roller, and

~~wherein said carriage is composed of releasing means for placing a space between said pressure plate and said sheet feeding roller against the force of said spring, and~~

~~wherein said releasing means places for placing a space between said pressure plate and said sheet feeding roller against the force of said spring after said sheet feeding roller completes feeding of the print medium, and after said transporting means completes a transportation and before said printing means starts a printing, a releasing operation is stopped temporarily, the print medium abuts against the sheet feeding roller and then a space is placed therebetween again.~~

8. (Previously Presented) A printing apparatus according to claim 7, wherein said pressure plate is movable in forward and backward direction relative to said sheet feeding roller, wherein the forward and backward movement is carried out in connection with a sheet feeding operation performed by said sheet feeding roller, and while said pressure releasing means is performing a pressing or releasing operation, the driving of said sheet feeding roller is interrupted.

9. (Currently Amended) A printing apparatus according to claim 4, further comprising a pinch roller holder that rotatably supports said pinch roller ~~and holder moving means for moving the pinch roller holder, and in that said carriage comprises said holder moving means.~~

10. (Previously Presented) A printing apparatus according to claim 4, wherein said carriage moves to vibrate said transporting means after at least a back end of the print medium has passed through an abutted portion between said transportation roller and said pinch roller.

11. (Previously Presented) A printing apparatus according to claim 4, further comprising detection means for detecting a position at which said transportation roller is stopped, and if it is detected that said transportation roller stopped position is deviate from a desired one after said carriage has moved to vibrate the transporting means, then said transportation roller stopped position is corrected before a print head performs a printing operation.

12. (Previously Presented) A printing apparatus according to claim 4, further comprising detection means for detecting a position at which said transportation roller is stopped, and if it is detected that said transportation roller stopped position is deviate from a desired one after said carriage has moved to vibrate the transporting means, then printing is carried out by shifting an operative portion of the printing means in the transporting direction depending on the amount of the positional deviate.

13. (Original) A printing apparatus according to claim 11, wherein said detection means comprises a signal generator that generates pulse signals the number of which

corresponds to rotation of said transportation roller, and counting means for counting the number of signals from the signal generator.

14. (Original) A printing apparatus according to claim 12, wherein said detection means comprises a signal generator that generates pulse signals the number of which corresponds to rotation of said transportation roller, and counting means for counting the number of signals from the signal generator.

15. (Original) A printing apparatus according to claim 1, wherein said printing means uses thermal energy to generate bubbles in ink so that energy generated by the bubbles causes the ink to be ejected.

16. (Currently Amended) A printing method performed by an apparatus which includes transporting means for transporting a print medium relative to printing means for performing a printing on the print medium, a carriage for supporting said printing means and for reciprocating said printing means, the apparatus performing a plurality of the printing by said printing means and a plurality of the transportation of a distance shorter than a length of the print medium in the transport direction by the transporting means by turns, and in which the printing by said printing means and the transportation by the transporting means are performed in sequence, the method comprising a step of:

moving said carriage to vibrate said transporting means without performing a printing after the transporting means completes a transportation of a distance and before

movement of said carriage with performing a printing by the printing means when the back end of the print medium reaches a predetermined range close to the transporting means the transportation and before the printing means starts a printing.

17. (Original) A printing method according to claim 16, wherein said transporting means comprises a movable member installed so as to move or stop relative to a travel path for the print medium, and said movable member contacts, while moving, with the print medium in said travel path to transfer the print medium, and is held, while stopped, at a predetermined stabilized position normally.

18. (Original) A printing method according to claim 17, wherein said transporting means comprises a pair of rollers installed in the travel path for the print medium and opposite each other, roller urging means for urging said pair of rollers so that the rollers sandwich the print medium therebetween, and driving means for rotationally driving at least one of said pair of rollers.

19. (Currently Amended) A printing apparatus in which ~~printer~~ a print head performs a printing operation on a print medium and a transportation roller transports the print medium, the printing and ~~said~~ the transportation of a distance shorter than a length of the print medium in the transportation direction being performed by turns ~~being performed in sequence~~, said printing apparatus comprising:

a carriage on which the printer print head is mounted, the carriage and ~~printer~~
the print head performing a printing operation while traveling in a direction crossing a direction
in which the print medium is transported;

a carriage motor for driving said carriage; and

a transporting motor for driving said transporting roller;

wherein, at the time after said transporting roller completes the transportation
of a distance and before the carriage travels with performing the printing by the print head, and in
a condition of stopping the transporting motor, said carriage motor causes said carriage to move
without performing a printing by the print head when the back end of the print medium reaches a
predetermined range close to the transporting means ~~printer starts a printing, and in a condition~~
~~of stopping the transporting motor, said carriage motor causes said carriage to move without~~
~~performing a printing by the printer.~~

Please add Claims 20-23, as follows:

--20. (New) A printing apparatus in which a print head performs a printing
operation on a print medium comprising:

a transportation roller for performing a transportation of a distance shorter than
the length of the print medium in the transportation direction;

a carriage on which the print head is mounted, the carriage and the print head
performing a printing operation while traveling in a direction crossing a direction in which the
print medium is transported;

vibrating means for vibrating said transportation roller,
wherein a traveling of the print head with printing operation and a transportation of a distance by the transportation roller being performed by turns,
wherein, at the time after said transporting roller completes a transportation of a distance and before the carriage travels with performing a printing by the print head, and in a condition of stopping the transporting roller, said vibrating means vibrates said transportation roller when the back end of the print medium reaches a predetermined range close to the transporting means.

21. (New) A printing apparatus according to claim 20, further comprising a pinch roller for pinching the print medium with the transportation roller.

22. (New) A printing apparatus according to claim 21, further comprising a pinch roller holder that rotatably supports said pinch roller and holder moving means for moving the pinch roller holder, wherein said vibrating means comprises said holder moving means.

23. (New) A printing apparatus according to claim 20, further comprising a pressure plate that supports the print medium, a sheet feeding roller that feeds the print medium supported on said pressure plate, a spring for pressuring a print medium supported by said pressure plate onto said feeding roller, and a pressure releasing means for placing a space between said pressure plate and said feeding roller, wherein said vibrating means is composed of said pressure releasing means for pressing and releasing said pressure plate.--